

REMARKS

Reconsideration and allowance are respectfully requested.

Claims 1-21 are cancelled and claims 27 and 30-32 have been withdrawn from consideration as being drawn to a non-elected species. Claims 22-26, 28 and 29 are currently pending.

The specification has been amended to incorporate the proper headings under 37 CFR 1.77(b) and to correct any typographical errors.

Claim 22 has been amended to further distinguish the present invention from the cited prior art. Claims 28 and 29 have been cancelled.

The present invention is directed to a method of recirculating carbon dioxide from a flow of gas through a gas turbine engine. The method, as claimed in currently amended claim 22, and illustrated in Figure 2, comprises (1) supplying air to a compressor region, (2) supplying fuel to a combustion means, (3) burning fuel within the combustion means and producing enriched carbon dioxide exhaust gases, (4) extracting the carbon dioxide from the exhaust gases downstream of a turbine region, (5) supplying carbon dioxide depleted exhaust gases to the exhaust nozzle, (6) condensing the extracted carbon dioxide, and (7) feeding the condensed extracted carbon dioxide to the compressor region without adding any constituents thereto.

FRUTSCHI et al. (US 2002/0134085) discloses a method of operating a gas turbine plant with carbon dioxide as the working medium. The method disclosed by FRUTSCHI et al. utilizes a quasi-closed carbon dioxide circuit wherein (1) hydrocarbons are combusted in a combustion chamber producing flue gases consisting of carbon dioxide and water, (2) expanding the flue gas within a turbine, (3) compressing the flue gases in a compressor, (4) partially condensing the flue gases in a condenser such that a portion of the carbon dioxide and water are liquefied and a main portion of the liquid carbon dioxide is then (5) compressed by a pump, preheated and then supplied back to the combustion chamber (Page 2 paragraph 9; See Fig. 5).

Specifically, all of the turbine exhaust in FRUTSCHI et al. is supplied to the compressor 18 whereas a portion of the turbine exhaust in the present invention is supplied to an exhaust nozzle 19 as claimed in currently amended claim 22. This is further emphasized in that FRUTSCHI et al. utilizes a quasi-closed carbon dioxide circuit. Additionally, FRUTSCHI et al. fails to teach or disclose supplying air to the compressor as claimed in currently amended claim 22.

Since FRUTSCHI et al. fails to teach or disclose (1) supplying carbon dioxide depleted exhaust gases to an exhaust nozzle and (2) supplying air to the compressor as claimed in currently amended claim 22, the present invention is believed novel and inventive over FRUTSCHI et al.

KELLER (US 6225706) discloses a method for isothermal compression of air in order to operate a turbomachine for generating electrical current. The method involves (1) pumping pressurized water from a reservoir to an atomization device, (2) forming a liquid/air mixture, (3) compressing the liquid/air mixture by means of a Laval nozzle, (5) separating the liquid from air in a high pressure chamber wherein the collected water is directed back to the water reservoir and the highly compressed air is directed to a further compressor, (6) sending the pre-compressed air to the combustion chamber wherein the resultant expanded hot gases drive the turbine 9 for generating a current (Column 5 lines 30-55).

In order to increase the level of atomization, KELLER discloses admixing carbon dioxide with water before supplying the liquid to the atomization device 2. The carbon dioxide can be removed from the off-gas after it has passed through the gas turbine 9 and then admixed with the liquid to be atomized with the use of off-gas feed lines 14 (Column 7 lines 52-66; See Fig. 5). The present invention does not mix the extracted condensed carbon dioxide with water before supplying it to the compressor and accordingly currently amended claim 22 has been amended to reflect this.

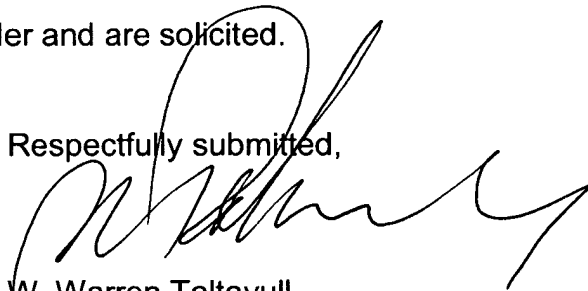
KELLER supplies carbon dioxide to water only to increase atomization of the mixture. More importantly, KELLER fails to teach or disclose supplying the

extracted carbon dioxide to the compressor region without being added to water, whereas the present invention supplies the condensed carbon dioxide directly to the compressor region without adding any constituent thereto as claimed in currently amended claim 22.

In the present invention, the atomizing nozzle arrangement 36 sprays liquid carbon dioxide into the main duct between the intermediate and high pressure compressors (Page 7 lines 19-22). KELLER's arrangement involves admixing liquid carbon dioxide with water in order to increase atomization of the water (Column 7 lines 52-62). Therefore, since KELLER fails to teach, suggest or disclose feeding the extracted condensed carbon dioxide to a compressor region without adding any constituent thereto, as claimed in currently amended claim 22, the present invention is believed novel and inventive over KELLER.

Having addressed all the points raised in the action, entry of this amendment is solicited, is believed appropriate, and is believed to distinguish the invention from the cited references. For the foregoing reasons, reconsideration and allowance are believed in order and are solicited.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'W. Warren Taltavull', is written over the typed name.

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